GPSMAP® 76CSx

mapping gps

owner's manual

GPSMAP 76CSx shown with optional MapSource® data.

© 2007 Garmin Ltd. or its subsidiaries

Garmin International, Inc.
1200 East 151st Street,
Olathe, Kansas 66062, USA
Tel. (913) 397.8200 or (800) 800.1020
Fax (913) 397.8282

Garmin (Europe) Ltd.
Liberty House
Hounsdown Business Park,
Southampton, Hampshire, SO40 9RB UK
Tel. +44 (0) 870.8501241 (outside the UK)
0808 2380000 (within the UK)
Fax +44 (0) 870.8501251

Garmin Corporation
No. 68, Jangshu 2nd Road,
Shijr, Taipei County, Taiwan
Tel. 886/2.2642.9199
Fax 886/2.2642.9099

All rights reserved. Except as expressly provided herein, no part of this manual may be reproduced, copied, transmitted, disseminated, downloaded or stored in any storage medium, for any purpose without the express prior written consent of Garmin. Garmin hereby grants permission to download a single copy of this manual onto a hard drive or other electronic storage medium to be viewed and to print one copy of this manual or of any revision hereto, provided that such electronic or printed copy of this manual must contain the complete text of this copyright notice and provided further that any unauthorized commercial distribution of this manual or any revision hereto is strictly prohibited.

Information in this document is subject to change without notice. Garmin reserves the right to change or improve its products and to make changes in the content without obligation to notify any person or organization of such changes or improvements. Visit the Garmin Web site (www.garmin.com) for current updates and supplemental information concerning the use and operation of this and other Garmin products.

Garmin® is a trademark of Garmin Ltd. or its subsidiaries, registered in the USA and other countries. GPSMAP®, AutoLocate®, TracBack®, BlueChart®, and MapSource® are trademarks of Garmin Ltd. or its subsidiaries. These trademarks may not be used without the express permission of Garmin.

This product includes technology owned by SiRF Technology, Inc. SiRF's technology is protected by U.S. and foreign patents pending and issued. SiRF, SiRFstar and the SiRF logo are registered trademarks of SiRF Technology, Inc. SiRFstarIII and SiRF Powered are trademarks of SiRF Technology, Inc.

microSD™ is a trademark of The SD Card Association. TransFlash™ is a trademark of SanDisk Corporation.

August 2007 Part Number 190-00558-00 Rev.D Printed in Taiwan

Introduction

Thank you for choosing the Garmin GPSMAP 76CSx. Both use the proven performance of Garmin GPS and full-featured mapping to create an unsurpassed portable GPS receiver. Take a moment to compare the contents of this package with the packing list on the box. If any pieces are missing, contact your Garmin dealer.

Tips and Shortcuts

- To quickly return to the Main Menu from any page, press the **MENU** key twice.
- To extend battery life, turn off the GPS when not using the eTrex for navigation. Decrease the level of the display's backlight by quickly pressing and releasing the **POWER** key.

Product Registration

Help us better support you by completing our online registration today! Connect to our Web site at http://my.garmin.com. Keep the original sales receipt, or a photocopy, in a safe place.

Contact Garmin

Contact Garmin if you have any questions while using your unit. Contact Garmin Product Support by phone: (913) 397-8200 or (800) 800-1020, Monday–Friday, 8 AM–5 PM Central Time; or go to www.garmin.com/support/ and click Product Support.

In Europe, contact Garmin (Europe) Ltd. at +44 (0) 870.8501242 (outside the UK) or 0808 2380000 (within the UK).

Optional Accessories

For a complete list of available accessories and maps for use with the eTrex, refer to http://buy.garmin.com.

TABLE OF CONTENTS

Introduction i
- Tips and Shortcuts i
- Product Registration i
- Contact Garmin i
- Optional Accessories i
- Operating the GPSMAP 76CSx iii
- Warnings iv
- Important Information iv

Getting Started 1
- Unit Overview 1
- Using the GPSMAP 76CSx Keypad 3
- Turning on the GPSMAP 76CSx 4
- Initializing the GPS Receiver 4

Basic Operation 7
- Creating and Using Waypoints 7
- Using the Find Menu 11
- Using Tracks 18
- Creating a Route 22

Main Pages 25
- Satellite Page 26
- Map Page 26
- Compass Page 29
- Altimeter Page 34
- Trip Computer Page 38

Main Menu 39
- Tracks 39
- Route Page 39
- Highway Page 39
- Setup Menu 40
- Proximity Waypoints 48
- Calendar 48
- Calculator 48
- Stopwatch 48
- Sun and Moon 48
- Hunt & Fish 48
- Games Menu 48

Appendix 49
- Specifications 49
- Interfacing 50
- Connecting Your GPSMAP 76CSx to a Computer 51
- Software License Agreement 55

Index 56

Operating the GPSMAP 76CSx

Understanding Terms

Select—move the highlighted area on the screen up, down, left, or right with the **ROCKER key** to select individual fields.

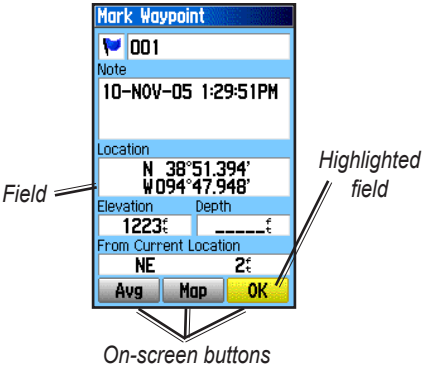
Key—when you are directed to press a key, press and quickly release the key.

Field—the location on a page where data or an option can be shown or entered.

On-screen button—use the **ROCKER** key to select a button, and press **ENTER**.

Scroll bar—when viewing a list of items too long to appear on the screen, a scroll bar appears next to the list. To scroll through a list, press up or down on the **ROCKER,** or use the **In** and **Out** keys.

Default—the factory setting saved in the unit's memory. You can change the settings, and revert to the factory settings when you select **Restore Defaults**.



Manual Conventions

In this manual, when you are instructed to select an item, small arrows (>) appear in the text. They indicate that you should highlight a series of items on the screen using the **ROCKER**, and press **ENTER** after each item. For example, if you see "select **Service** > **Show Info**," you should highlight Service, and press **ENTER**. Then highlight Show Info, and press **ENTER** again.

Warnings

Failure to avoid the following potentially hazardous situations could result in an accident or collision resulting in death or serious injury.

- When navigating, carefully compare information displayed on the unit to all available navigation sources, including information from visual sightings, and maps. For safety, always resolve any discrepancies or questions before continuing navigation.
- Use the electronic chart in the unit only to facilitate, not to replace, the use of authorized government charts. Official government charts and notices to mariners contain all information needed to navigate safely.
- Use this unit only as a navigational aid. Do not attempt to use the unit for any purpose requiring precise measurement of direction, distance, location, or topography.

WARNING: This product, its packaging, and its components contain chemicals known to the State of California to cause cancer, birth defects, or reproductive harm. This Notice is provided in accordance with California's Proposition 65. See www.garmin.com/prop65 for more information.

The California Electronic Waste Recycling Act of 2003 requires the recycling of certain electronics. For more information on the applicability to this product, see www.erecycle.org.

Important Information

MAP DATA INFORMATION: One of the goals of Garmin is to provide customers with the most complete and accurate cartography that is available to us at a reasonable cost. We use a combination of governmental and private data sources, which we identify in product literature and copyright messages displayed to the consumer. Virtually all data sources contain some inaccurate or incomplete data. In some countries, complete and accurate map information is either not available or is prohibitively expensive.

GETTING STARTED

Unit Overview

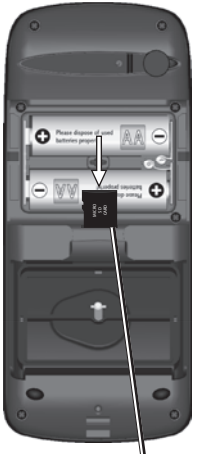
Batteries, microSD Card, and Lanyard

The GPSMAP 76CSx operates on two AA batteries (not included), which are located in the back of the unit. You can use Alkaline, NiMH, or Lithium batteries. See page 40 for information on setting the battery type.

To install the batteries:

1. Remove the battery cover by turning the D-ring 1/4 turn counter-clockwise and pulling the cover loose.
2. Insert the batteries, observing the proper polarity.
3. Reinstall the battery cover.

Remove the batteries from your unit when you do not expect to use the unit for several months. Stored data is not lost when batteries are removed.



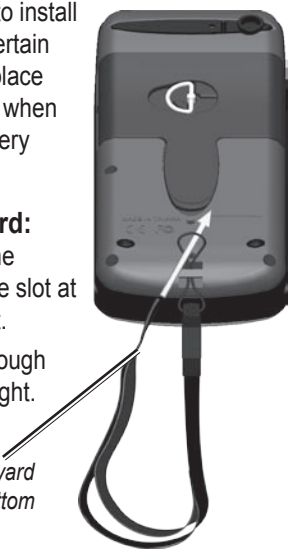
microSD card slot (with microSD card in position for insertion)

To install the microSD card:

1. Remove the battery cover by turning the D-ring 1/4 turn counter-clockwise and pulling the cover loose.
2. Locate the microSD card in the slot below the batteries and press down on the top edge of the card until you feel it click. Then gently allow the card to release.
3. Press down again to install the card, making certain the card is fully in place to prevent damage when reinstalling the battery cover.

To install the lanyard:

1. Place the loop of the lanyard throught the slot at the base of the unit.
2. Route the strap through the loop, and pull tight.



Install the carry lanyard in the slot at the bottom of the unit

Using the GPSMAP 76CSx Keypad

IN/OUT Zoom Keys

Press to zoom in or out on the Map page.

Press to scroll up or down a list on any other page.

FIND/MOB Key

Press at any time to view the Find Menu.

Press and hold for MOB.

POWER Key

Press and hold to turn the unit on or off.

Press and Release to adjust the backlighting.

QUIT Key

Press to cancel data entry or exit a page.

ROCKER Key

Press up, down, left, or right to highlight options and to enter data, or move the map panning arrow.

PAGE Key

Press to cycle through the main pages.

Press and hold to turn the compass on or off

MENU Key

Press to view page options.

Press twice to view the Main Menu.

ENTER/MARK Key

Press and release to enter highlighted options, data or confirm on-screen messages.

Press and hold at any time to mark your current location as a waypoint.

Turning on the GPSMAP 76CSx

To turn the GPSMAP 76CSx on and off:

Press and hold the **POWER**.

Adjusting the Backlight

To adjust the backlight level:

1. Press and quickly release the **POWER** key.
2. Press up on the **ROCKER** to increase the brightness, or press down to decrease.
3. Press **ENTER** or **QUIT** to close.

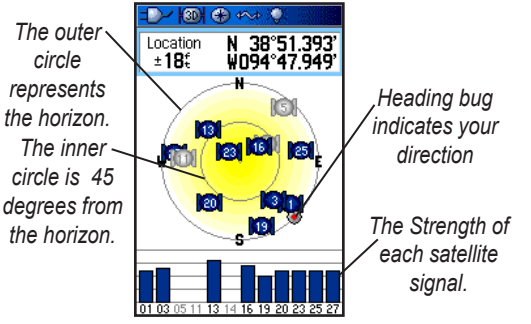
See page 40 for information on changing the screen colors and backlight time out and brightness levels.

Initializing the GPS Receiver

The first time you turn on your unit, the GPS receiver must collect satellite data and establish its current location. To receive satellite signals, you should be outdoors and have a clear view of the sky.

To initialize your GPSMAP 76CSx:

Hold the unit in front of you facing the sky and observe the Satellite page. While the GPS receiver is searching for the satellite signals, a "Locating Satellites" message is replaced by an "Acquiring Satellites" message until a location fix is made.



Initialization Options

If the unit cannot get a satellite fix, an options menu with a list of solutions appears. Highlight the appropriate solution and press **ENTER**.

Using the Status Bar

At the top of each page, the status bar provides status information for several unit features.

Status Bar

The Battery Power icon ( ) shows the remaining battery power. The Auxiliary Power icon ( ) or Cable Connection icon ( ) appears when the unit is plugged in to an external or USB power source.

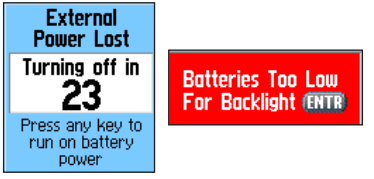
Satellite signal status is shown when searching for or acquiring satellites ( ), when a 2D fix ( ) is attained and when a 3D fix ( ) is attained.

The Backlight icon ( ) appears when the backlight is on. The Backlight is off when you turn the unit on. The Backlight uses a significant amount of battery power.

Electronic compass icon ( ) appears when the electronic compass is turned on.

On-Screen Messages

When a significant event in the operation of the unit occurs, an on-screen message appears to advise you of the occurrence. In each case the condition is described and often a remedy provided. Press **ENTER** to acknowledge the message and close the window.



On-Screen Messages

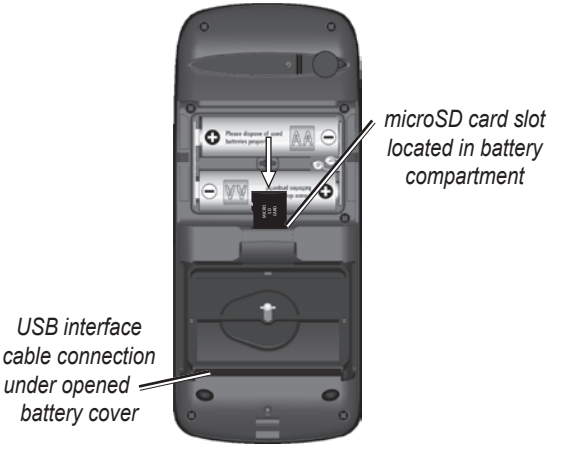
Using the Databases

Optional MapSource CD-ROMs enhance the versatility of your GPSMAP 76CSx. This data is loaded to the microSD Card already installed in the unit. With optional MapSource City Navigator data, you can view listings of nearby restaurants, lodging, shopping centers, attractions and entertainment, and even retrieve addresses and phone numbers for any listed location.

The included USB Interface Cable or an optional PC interface cable (with a serial connector) can be used to transfer MapSource CD-ROM data to the microSD card. Higher capacity and pre-loaded microSD map data cards are also available.

Map data transfer requires the USB Interface Cable provided with the unit to transfer MapSource data from a PC to the microSD card when installed in the GPSMAP 76CSx. Use the USB Mass Storage feature to transfer other files to the microSD as explained on page 51.

See http://www.garmin.com/cartography/ for compatible MapSource products.



Basic Operation

This section explains some of the more common operations you can perform with your GPSMAP 76CSx including using the Find Menu, creating and using waypoints, tracks, and routes.

Creating and Using Waypoints

Waypoints are locations or landmarks you record and store in your GPS. You can add waypoints to routes and even create a Go To directly to the selected waypoint.

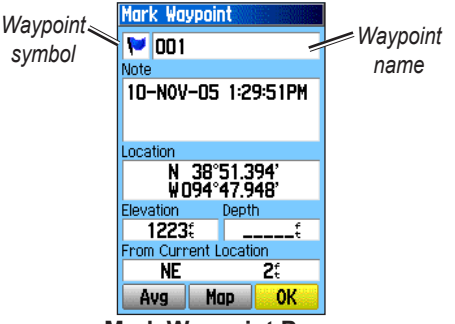
You can create waypoints using three methods. Press the **ENTER/MARK** key while at a location, create a waypoint on the Map page, or enter coordinates for a waypoint manually.

Marking Your Current Location

Use the **ENTER/MARK** key to quickly capture your current location creating a new waypoint. You must have a valid position (2D or 3D) fix to mark your current location.

To mark your current location:

1. Press and hold the **ENTER/MARK** key until the Mark Waypoint page appears. A default three-digit name and symbol are assigned to the new waypoint.



Mark Waypoint Page

2. To accept the waypoint with the default information, highlight **OK**.

   OR

   To change any information, select the appropriate field, and press **ENTER** to open the on-screen keypad. After entering and confirming your changes, select **OK**.

Creating Waypoints Using the Map

To create a waypoint using the Map page:

1. On the Map page, use the **ROCKER** to move the pointer to the map item you want to mark.
2. Press and quickly release **ENTER/MARK** to capture the pointer location and open the information page for the map item.
3. Select **Save**. If there is no information for that point, a "No map information at this point. Do you want to create a user waypoint here?" prompt appears. Select **Yes**.

Editing Waypoints

You can edit waypoints to change the symbol, name, note, location, elevation, and depth.

To edit a waypoint:

1. Press **FIND**..
2. Select **Waypoints.**.
3. Select the waypoint you want to edit, and press **ENTER**.
4. Make changes by highlighting each field and use the waypoint symbol chart, and alphanumeric keypad to enter new data.

To delete a waypoint:

From the Waypoints page, select the waypoint you want to delete > **Delete**.

NOTE: When you delete a waypoint, you cannot recover it from the unit.

To move a waypoint on the Map page:

1. Press **FIND** > **Waypoints**.
2. Select the waypoint you want to move, and press **ENTER**.
3. Select **Map** to show the waypoint on the map.
4. Press **ENTER** again to place a MOVE marker next to the waypoint.
5. Use the **ROCKER** to move the waypoint to a new location, and press **ENTER**.

Averaging a Waypoint's Location

You can average a new waypoint location over time to produce a more accurate location.

NOTE: You must have a GPS Satellite fix before you can average a waypoint's location.

To calculate a location by averaging:

1. Find a location you want to calculate an average for, press **MARK** > **Avg** to begin averaging.
2. Press **Save**.

Projecting a Waypoint

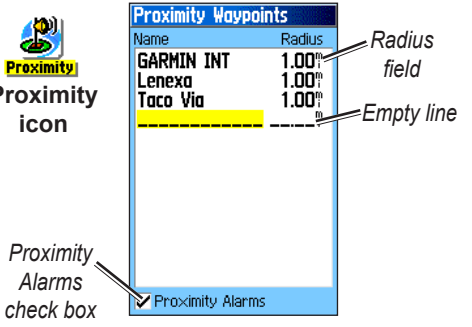
Create a new waypoint by projecting the distance and bearing from one location to a new location.

To project a waypoint:

1. Press **FIND** > **Waypoints**.
2. Select the waypoint you want to project. The Waypoint page opens.
4. Press **MENU** to open the Options menu.
5. Select **Project Waypoint**, and press **ENTER** to open the Project Waypoint page.
6. Enter the distance and bearing to the projected waypoint in the appropriate fields at the bottom of the page, and press **QUIT** when finished.

Proximity Waypoints

Use the Proximity Waypoints page to define an alarm circle around a waypoint.



To add a proximity waypoint

1. Press **MENU** twice > **Proximity**.
2. Select an empty line, and press **ENTER**.
3. Select a waypoint from the Waypoints List or from any other group of Find items to open the information page for the item.
4. Select **Use** to add the point to the list on the Proximity Waypoints page.
5. Using the **ROCKER** to select the **Radius** field and enter a value.

To clear one or all proximity waypoints from the list:

To remove or review a single entry, press **ENTER**. To remove all waypoints from the list, press **MENU** > **Remove All**.

To turn proximity alarms on or off:

1. Press **MENU** twice to open the Main Menu.
2. Highlight the **Proximity** icon and press **ENTER** to open the Proximity Waypoints page.
3. Highlight the **Proximity Alarm Tones** button to open the Alarm Tones page. Place a check in the Proximity Alarms box, and press **ENTER** to initiate the alarm feature. As you approach a proximity waypoint, a tone sounds and a "Near Proximity Point" message appears. When you move outside the set radius, a "Leaving Proximity Point" message is shown. Use this page to select tones for proximity alarms.

Man OverBoard (MOB)

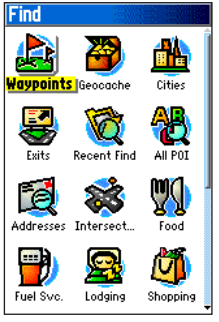
Another method for creating a waypoint is the Man Overboard (MOB) feature. Use this application for marking a location on water where you cannot stop quickly and must return to a point where there are no landmarks for reference.

To create a waypoint using the MOB feature:

1. Press and hold **FIND/MOB** to mark the MOB waypoint.
2. Press **ENTER** to open the Map page showing the path from your current location to the MOB point. Use the Compass page for additional guidance to the MOB point.

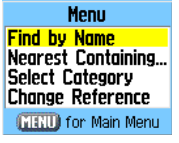
Using the Find Menu

Use the Find Menu to search for waypoints, geocaches, cities, and exits included in the GPSMAP 76CSx basemap. Additional icons appear depending on the optional BlueChart or MapSource data loaded to the unit. Press **FIND** to open the Find Menu.



Find Menu with optional MapSource data

Waypoint Options Menu



Cities Options Menu

When you access a Find list, it contains items near your current location or the pointer.

The options menu for each category contains a submenu of search options. Select a category.

Find By Name

Use Find By Name if you know the name of the location you want to find.

To find a location using Find By Name:

1. Press **FIND** to open the Find Menu.
2. Select the icon for the type of item for which you want to search for, or search the entire database by selecting **All Points of Interest**.
3. Press **MENU** > **Find By Name**.
4. Use the **ROCKER** to operate the on-screen keypad and enter the name of the location you want to find. When the Find list contains a match, highlight **OK**.
5. Select the location item from the Find list, and press **ENTER**. The item's information page opens, allowing you to save the item as a waypoint, show the item on the map, or automatically create a route to the item (Go To).

Recent Finds

The Recent Finds page shows a list of the last 50 items you have searched for or gone to recently.

To go to a recently found item:

1. Press **FIND**.
2. Select **Recent Finds**.

Recent Finds icon

List of recently found items

3. Use the **ROCKER** to select the item you want to go to, and press **ENTER**.
4. Select **Go To** to begin navigation.

Using the Find Information Page

When you select an item from the Find List and press **ENTER**, an information page shows detailed information about the item. Each information page contains three on-screen buttons. Different buttons appear depending on whether you are selecting an item to navigate to or adding an item.

Find Information Page Options

To use the Options Menu:

1. With an information page open for a Find item, press **MENU** to open the Options Menu.
2. Use the **ROCKER** to select an option:

- **Average Location**—sample a new waypoint location over time and average the result for a more accurate location reference. See page 9.
- **Project Waypoint**—create a new waypoint by entering bearing and distance from a referenced location. See page 9.
- **Find Near Here**—return to the Find Menu to search for map items near the item.

- **Change Reference**—point to a new location on the Map page using the pointer.
- **Set Proximity**—program an alarm to sound when you are within a specified radius of an item. See page 9.
- **Add To Route**—include this item on a new route or add it to an existing route. See "Creating and Using Routes" on page 22.
- **View Sun and Moon**—view Sun and Moon tables for this item location. See page 48.
- **View Hunt and Fish**—view Hunt and Fish tables for this item location. See page 48.
- **Map Information**—show the map from which the map item originated. See the Appendix for information about downloading detailed maps.

To find an item near another item:

1. Press **FIND**.
2. Select an icon on the Find Menu.
3. Select an item in the Find list.
4. Press **MENU**, select **Find Near Here**. The Find Menu opens again with each category containing items near the item selected.
5. Select a category icon and press **ENTER** to open a Find list of items near the item.

To find an item from another location on the map:

1. Press **FIND**.
2. Select an icon on the Find Menu.
3. Press **MENU**, select **Change Reference**. The Map page appears.
4. Use the **ROCKER** to pan the arrow (pointer) to the map location you want. The Find list shows a list of items near the new map location.

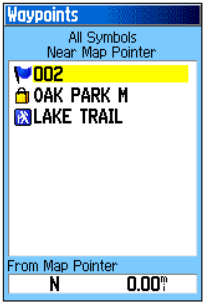
Finding a Waypoint

The Waypoints page contains a list of all saved waypoints. Waypoints are stored in alphanumeric order and are identified by an assigned symbol.

To find a waypoint:

1. Press **FIND**.
2. Select **Waypoints** and choose a waypoint.

Waypoints icon



Finding a Geocache

Select **Geocache** to view the list of geocache locations created by you or downloaded from your computer. A geocache location is a waypoint with a special geocache symbol to separate it from others. For more information about geocaching, log on to http://my.garmin.com and click "Go Geocaching."

To find a geocache:

1. Press **FIND**.
2. Highlight **Geocache**. You can view found geocaches or those that have not been found.
3. Use the **ROCKER** to highlight a geocache on the list.
4. Select **Go To** to navigate to the geocache location. When you navigate to a geocache, the Compass page changes to Geocache Navigation mode and any additional information about downloaded cache location is shown in the comment field.

When a geocache is found, the unit marks the cache as found, logs an entry into the calendar, and provides an option that shows the nearest cache.

Finding a City

Select **Cities** from the Find Menu to find any city listed in the mapping data.

To find a city:

1. Press **FIND**.
2. Select **Cities**. The Cities page shows a list of cities near your current location.
3. Select a city from the list and press **ENTER**.
   OR
   If the city you want is not listed, press **MENU** > select a search method.

Finding an Interstate Exit

Use the **Exits** icon on the Find Menu to find an interstate exit.

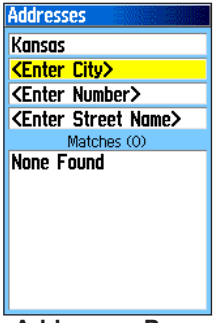
To find an interstate exit:

1. Press **FIND**.
2. Select **Exits**. A list of interstate exits near your location is shown.
3. Use the **ROCKER** to select an exit, and press **ENTER**. This page contains the exit description, a list of available services near the exit, and the distance and bearing from the exit to the highlighted service.
4. Select a service from the list, press **ENTER**.

Finding an Address

If you downloaded detailed mapping data, use the Addresses icon on the Find Menu to find an address. When you enter the street number, street name, and city, the find feature matches that data with addresses in the map database.

Addresses icon



Addresses Page

To find an address:

1. Press **FIND**.
2. Select **Addresses**.

> **NOTE:** If your unit has a GPS fix, the <**Enter Region**> field is populated with your current region. You do not have to specify a city in the <**Enter City**>, as the database has information for the entire region. \

3. Select **<Enter Number>** and type the street number using the screen keypad. Select **OK**.
4. Select **<Enter Street Name>**. The street list opens.
5. Use the screen keypad to enter enough of the street name to show a match. Select **OK**. A list of matches appears.
6. Select the address you want.

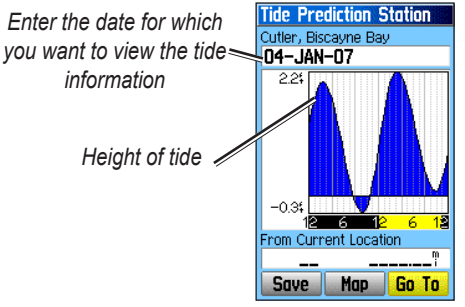
Finding an Intersection

This feature also requires detailed mapping data. Follow the basic steps for finding an address when searching for an intersection.

Finding a Marine Point

If using MapSource BlueChart marine cartograpy, use the Marine menu which contains subcategories including Wrecks, Tides, Navaids, Marine Services, Anchorages, and Restricted Areas.

The Tide icon contains a list of tide stations with information in a 24-hour span starting at midnight station time is available for each tide station. The chart shows a 24-hour block of time, with the time progressing from left to right. The solid vertical lines represent 4 hour increments; the dotted vertical lines represent 1 hour increments.



Tide Prediction Station

To view the tide chart for another date:

1. From the Tide menu with the chart shown, select **Date**, and press **ENTER**.
2. Enter the date with the **ROCKER**. You can also use the Zoom **IN** and **OUT** keys to view information for another date. Press and hold **IN** or **OUT** to scroll quickly through dates.
3. Press **ENTER**. The unit shows the chart for the date you entered or selected.

To use the current date again, select the **Date** field. Press **MENU** > **Use Current Date**.

Searching for a Point of Interest

If you downloaded MapSource detailed mapping, use All Points of Interest to locate items such as nearby restaurants, lodging, landmarks, and public buildings.

To find a point of interest:

1. Press **FIND**.
2. Select **All Points of Interest** to show a list of all points near your current location.
3. Press **MENU**.
4. Select an item from the list, and press **ENTER**.

If you are searching for a restaurant that is part of a national chain, only the restaurant nearest to your location is shown when you search using the Find Nearest option. If you search using the By Name option, all of the locations for that chain in the mapping database are shown with the closest to your current location listed first.

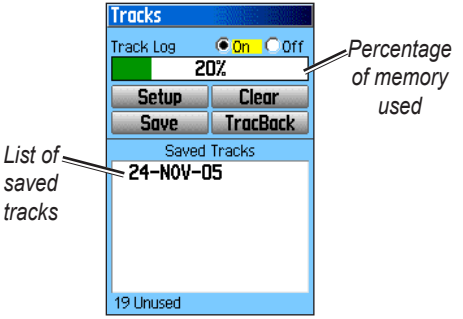
POI Loader and Custom Points of Interest

You can create your own category for points of interest by using the Garmin POI Loader utility available from the Garmin Web site www.garmin.com/products/poiloader/. Follow the Help instructions to use POI Loader.

Using Tracks

The Tracks feature creates an electronic bread crumb trail or "track log" on the Map page as you travel. The track log contains information about points along its path, including time, location, elevation, and depth (depth requires NMEA input, see page 41).

The track log starts recording as soon as the unit gets a location fix. The percentage of memory used by the current track log appears at the top of the Tracks page.



Tracks Page

To clear the track log:

1. Press **MENU** twice to open the Main Menu.
2. Select **Tracks**.
3. Select the **Clear** button. A confirmation message appears.
4. Select **OK**.

To set up a track log:

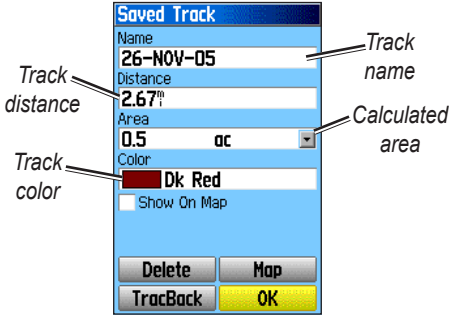
1. Press **MENU** twice > **Tracks**.
2. Select **Setup**.

- **Wrap When Full**—the track log records over the oldest data with new data.
- **Record Method**—Distance records track points after a specified distance is traveled. Time creates track points after a specified time has elapsed. Auto allows you to choose from five intervals.
- **Interval**—records a track according to the Record Method and Interval. Enter a specific distance, time, or frequency.
- **Color**—select the color of the active track on the map.

- **Log Track to Data Card**—records the current track log to the microSD card in addition to the unit's internal memory. Using this option allows you to record a large number of track points (depending on the capacity of the microSD card.) Track logs on the data card are .gpx GPS position data files, and are not used by your unit.

To save the entire track log:

1. Press **MENU** twice > **Tracks**.
2 Select **Save**. A message appears asking you if you want to save the entire track.
3. Select **Yes** to save the track.



Saved Track Page

To save a portion of the track log:

1. Press **MENU** twice > **Tracks**.
2. Select **Save**. A message appears asking you if you want to save the entire track.
3. Select **No** to save only a portion of the track log.
4. Use the **ROCKER** to move the pointer to the point on the track line that you want to be the beginning point, and press **ENTER**.
5. Repeat to select an ending point. Select **OK**.

To log tracks to the microSD card:

1. With the Track Log setup page shown, select **Data Card Setup**.
2. Highlight the **Log Track to Data Card** option, and then press **ENTER**. A current date .gpx file appears in the Data Card Tracks list.

   This file is a continuous compilation of all track data for the indicated date. As long as this feature is enabled, a new file is recorded for each day you use the unit. Recording continues until the card is filled.

3. Use the USB cable to connect to your computer and then access the USB Mass Storage feature as explained on page 41. Open the track logs using Garmin MapSource or another .gpx file-compatible application.
4. To delete these track logs from the microSD card, highlight individual logs, and then press **ENTER.** Use the **Delete All** button to clear the entire list.

NOTE: Do not remove the microSD card from the unit while logging a track, as corruption of the data can result.

To view a track on the map:

On the Saved Track page, select the **Map**. A map showing the entire track appears. Begin and End markers and user waypoints are added to the track.

To calculate the area of a track:

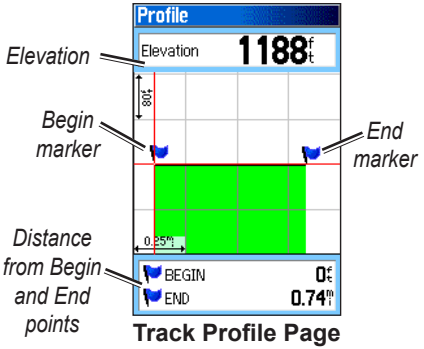
1. With the Track Log page open and the Track Log on, press **MENU**.
2. Select **Area Calculation**, and press **ENTER**.
3. Press **ENTER** to start the area calculation. As you begin to move and define the area's boundaries, a **Stop** button appears at the bottom of the page.
4. When finished defining the area, press **ENTER** and select **Save**.

Track Profiles

A Track Elevation Profile is created from elevation readings or, when using Digital Elevation Model (DEM) maps. Refer to the Garmin Web site for information about these maps.

To view a track profile:

1. Open the Saved Track page, and press **MENU**.
2. Highlight **Profile**. The beginning of the track is marked by a flag. Use the **ROCKER to** scroll across the track profile. At any point along the profile, press **ENTER** to show that point on the map.
3. Press **MENU** to use Zoom Ranges and Hide Symbols options.



Track Profile Page

Navigating a Saved Track

To use the TracBack feature:

1. With the Saved Tracks page for the track or the Track Log open, select **TracBack**to show the track. Select the point to TracBack.
2. Use **ROCKER** to move the pointer to the point on the map to start navigating the TracBack.
3. Select **Follow Road** to route back to the point using available roadways, or select **Follow Track** to retrace your original path of travel. The Map page gives directions to the first turn on the track.
4. Move in the direction of the first turn. At the first turn, directions to the next turn are shown, and so on, until you reach your destination.
5. Press **MENU** > **Stop Navigation** to exit.

To create a waypoint on a saved track:

1. With the saved track on the map, use the **ROCKER** to move the pointer on the track point that you want to mark as a user waypoint.
2. Press **ENTER**.

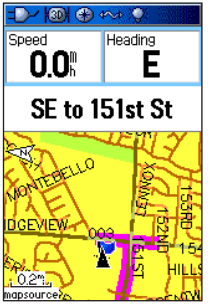
Creating a Route

Routing creates a sequence of waypoints that lead you to your final destination. The GPSMAP 76CSx stores 50 routes with up to 250 points each. Create or modify a route using the Routes page, and add waypoints to a route. Create complex routes using MapSource map data.

To create a route:

1. Press **MENU** twice > **Routes**.
2. Select **New** > **<Select Next Point>**.

Route Page



Route on the Map Page

3. Use the Find Menu to select a route waypoint from one of the Find groups.
4. Select **Use** to add it to the route.
5. Select **Navigate** .

Methods for routing you to a destination

- If you select **Go To** on the Waypoint page, or other Find items, a straight path is created.
- If you select **Navigate** when on a Route page, the GPSMAP 76CSx uses a route made of waypoints or Find Menu items. It navigates directly from point to point.
- If you select the **Follow Roads** option on the Routing Setup page. Both Go To navigation and point-to-point allow you to Auto-route using roads. Auto-routing uses roadways in the map database to automatically calculate a route to your destination. Turns on roadways are preceded by a guidance message with a graphic of the turn.

Navigating a Route

To navigate a saved route:

1. Press **MENU** twice > **Routes**.
2. Select a saved route > **Navigate**.
3. Select **Follow Road** or **Off Road** from the prompt.
4. To stop navigating, press **MENU** > **Stop Navigation**.

Using Auto-Routing

This feature is enabled when using City Navigator® mapping data.

When you select a destination, and select **Go To**, you are queried, "Follow Road" or "Off Road."

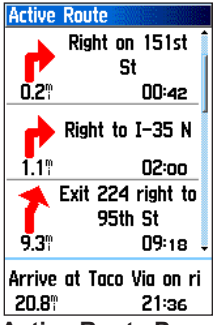
Using **Follow Roads** increases the number of turns and shows an Active Route page.

Select **Off Road**, to view only a list of route points.

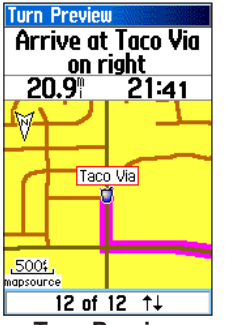
A "Calculating Route" message appears until the route calculation is complete. Your route appears as a magenta line overlaying the map.

To preview the turns for an active route:

1. From the Routes page, select a saved route.
2. Select **Navigate** to begin navigation.
3. Press **QUIT** to view the list of turns on the route. To view an individual turn, select it.



Active Route Page when following roads



Turn Preview Page

4. Use the **ROCKER** to scroll through all turns.

Editing a Route

Use the Route page to edit, change the route name, and review route points.

To change the name of the route:

1. Press **MENU** twice > **Routes**.
2. Select a saved route > select the route name field at the top of the Route page.

To review individual route points:

1. Press **MENU** twice > **Routes**.
2. Select a saved route > select a point on the Route page > **ENTER** > **Review**.
3. Select **Save**, **Map**, or **Go To**.

To delete a route:

From the page for that route, press **MENU** > **Delete Route**.

To select the off-road transition for a route:

1. Press **MENU** twice > **Routes** > **MENU**.
2. Select **Off Road Transition** > **Route Leg Transition**.
3. Select **Manual** or **Distance** when advancing to the next point.

Select **Distance** to enter a radius so that when you are within the entered distance, you are led to the next point.

Select **Manual** to transition to the next waypoint anytime while navigating a route.

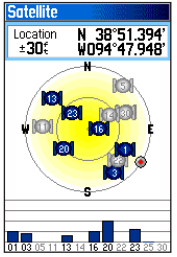
Route Page Options

- **Remove All**—removes waypoints from a saved route.
- **Reverse Route**—reverses the order of the route points in the saved route.
- **Profile**—creates a vertical profile of the route.
- **Copy Route**—makes a copy of the saved route with the same name, followed by a number.
- **Delete Route**—deletes the saved route.
- **Change Data Fields**—select different values for the two data fields at the bottom of the page.
- **Restore Defaults**—restore route settings to the factory default settings.

Main Pages

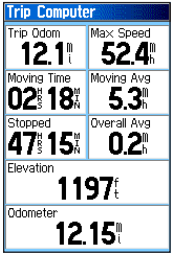
The GPSMAP 76CSx has six main pages: Satellite page, Trip Computer page, Map page, Compass page, Altimeter page, and the Main Menu. Cycle through these pages by pressing the **PAGE** key to move forward or pressing the **QUIT** key to reverse. Add additional pages by using the Page Sequence option on the Main Menu. The Active Route page appears when you are actively navigating.

Each page has an Options Menu. To view the Options Menu for a page, press **MENU**.

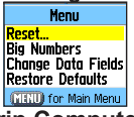


Satellite Page

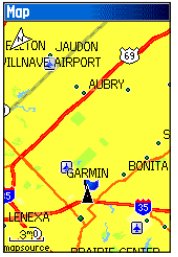
Satellite Page Options Menu



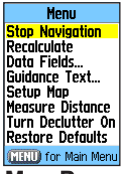
Trip Computer Page



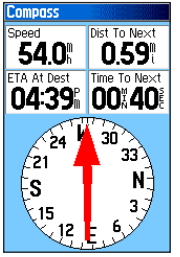
Trip Computer Page Options Menu



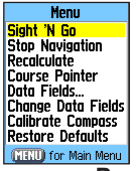
Map Page



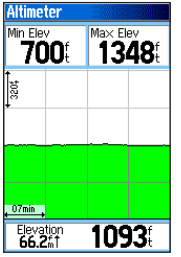
Map Page Options Menu



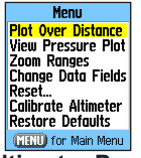
Compass Page



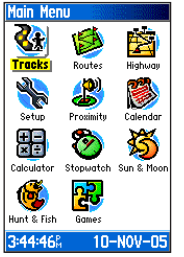
Compass Page Options Menu



Altimeter Page



Altimeter Page Options Menu



Main Menu

No Options Available for the Main Menu

Satellite Page

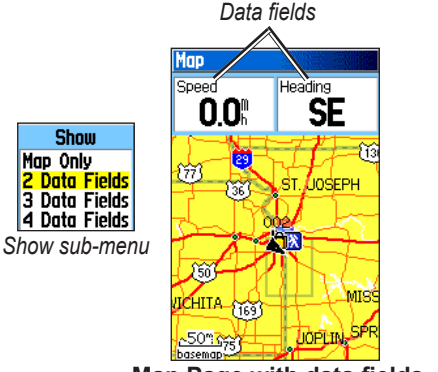
The Satellite page appears when you turn the unit on and shows the receiver status, satellite locations, satellite signal strength, and the receiver's current location.

Satellite Page Options

- **Use With GPS Off/On**—enables you to turn the GPS receiver on or off.
- **Track Up/North Up**—indicates whether satellites are shown with the rings oriented with North toward the top of the screen or your current track toward the top of the screen.
- **Multicolor/Single Color**—indicates whether each satellite is shown in a different color or the same color.
- **New Location**—use if you have moved the unit more than 600 miles and you are having trouble locking onto satellite signals.
- **GPS Elevation**—shows your current GPS elevation.

Map Page

A built-in basemap that includes cities, interstates, state and county highways, exit information, and lake and river outlines. The basemap can be enhanced with the addition of MapSource or BlueChart data.



Map Page with data fields

Two map operating modes, position mode and pan mode, determine what is shown on the map. Position mode pans the map to keep your present location in the screen area. The position marker shows your travel on the Map page. When you press the

ROCKER, the GPSMAP 76CSx enters pan mode, which moves the map to keep the white arrow (map pointer) within the screen area.

When you are in pan mode, you can move the map pointer about the page to highlight and identify map items. Add and configure up to four optional data fields to the top of the page to provide a variety of travel and navigational information.

To show data fields on the Map page:

1. Press **MENU** > **Data Field**.
2. Select the number of data fields you want to show on the Map page, and press **ENTER**.

To change a data field:

1. Press **MENU** > **Change Data Fields**. The first data field is highlighted.
2. Press **ENTER**.
3. Select an option.
4. Move to the next field and repeat.

Using Additional Map Data

View listings such as nearby restaurants, lodging, shopping centers, attractions, and entertainment, and you can retrieve addresses and phone numbers for any listed location when using optional MapSource data. Using BlueChart data, you can view marine navaids, wrecks, obstructions, and anchorage locations.

To review map information:

1. From the Map page, press **MENU** > **Setup Map**.
2. Select the **Map Setup-information page**. The list of maps stored on the microSD card appears. A check mark means a map is active.

Changing the Zoom Range

Press **IN** to decrease the Zoom Range and show an area with greater detail; press **OUT** to increase the Zoom Range and show a larger area with less detail.

The current Zoom Range setting is shown in the lower left corner of the Map page. If no further map information is available, “overzoom” appears under the Zoom Range When using MapSource detailed maps, “mapsource” appears below the scale.

Map Orientation

There are two map orientations in the Map Setup option North Up orients the map like a paper map. Track Up orients the map in the direction of travel.

Map Page Options

- **Stop (Resume) Navigation**—stops/resumes navigation.
- **Recalculate**—recalculates a route.
- **Data Fields**—opens the Show sub menu so you can select the number of data fields to show: Map Only, 1 wide, 2, 2 wide, 3, or 4 data fields.
- **Change Data Fields**—allows you to select the type of data in the data fields. This option is available only if data fields are selected.
- **Guidance Text**—shows messages on the screen advising you of your next navigation move.
- **Setup Map**—accesses to six pages of display options.
- **Measure Distance (Stop Measuring)**—measures the distance from your current location to the map pointer.
- **Turn Declutter On (Off)**—eliminates items on the map that can block road details.
- **Restore Defaults**—returns to factory defaults.

Guidance Text

When navigating, guidance text appears above the map.

Guidance text

To show guidance text:

1. Press **MENU** > **Guidance Text**.
2. Select **Always Show**, **Never Show**, or **Show When Navigating**.

If you select **Always Show,** a guidance message always appears.

If you select **Show When Navigating**, a guidance message shows until you select **Stop Navigation**.

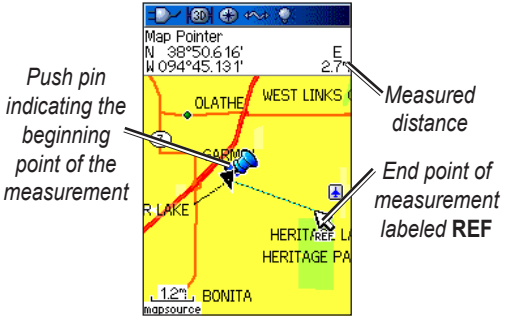
Setup Map

See page 42 for detailed instructions.

Measuring Distance

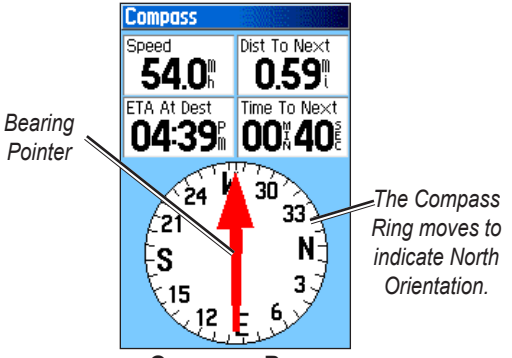
To measure distance between two points:

1. Press **MENU** > **Measure Distance**. An on-screen arrow appears on the map at your current location with REF below it.
2. Move the arrow to the reference point (the starting point you want to measure from), and press **ENTER**. A push pin icon marks the starting point on the map.
3. Move the arrow to the point you want to measure to. The distance between the two points is shown in the upper-right corner.



Compass Page

The Compass page guides you to your destination with a graphic compass and a bearing or course pointer.



Compass Page

The rotating compass ring indicates the direction you are heading. The bearing and course pointers indicate the direction (bearing to or course of travel) to your destination, relative to your current heading direction. Choose a bearing pointer or course pointer for guidance.

Using the Electronic Compass

When you press and hold **PAGE** on these units, the electronic compass turns off and stays off until you press and hold **PAGE** again.

The electronic compass functions like a magnetic compass when you are stationary. When you are moving and reach a pre-set speed, it uses data from the GPS receiver to maintain your heading. When you stop (after a pre-set time), it again operates like a magnetic compass.

To turn the electronic compass on or off:

1. Press and hold the **PAGE** key to turn the electronic compass on or off. The Compass icon appears in the status bar when the electronic compass is on. When you are not using the electronic compass, turn it off to conserve batteries. When it is turned off, the unit uses the GPS receiver for navigation.
2. Hold the GPSMAP 76CSx level to get an accurate electronic compass reading.

Setting the speed and time for Compass Auto On/Off:

1. Press **MENU** twice to open the Main Menu.
2. Highlight **Setup**, and press **ENTER** to open the Setup Menu.
3. Highlight the Heading icon, and press **ENTER** to open the Heading Setup page.
4. Highlight the **Switch to compass heading when below** field, and press **ENTER**.
5. Use the numeric keypad to enter a speed.
6. Highlight the **for more than** field, and press **ENTER** to set the time delay from the time options list.

Calibrating the Electronic Compass

Calibrate the electronic compass outdoors when you first use the GPSMAP 76CSx. To ensure continued accuracy, calibrate after installing new batteries, after moving more than 100 miles (160 km), or experiencing a temperature change greater than 68º F (20º C) from the last calibration. The accuracy of the electronic compass is also adversely affected if the unit is not held level or you are near objects that affect magnetic fields, such as cars or buildings.

To calibrate the electronic compass:

1. Press **MENU** > **Calibrate Compass**.
2. With **Start** selected, press **ENTER**, and follow on-screen directions for holding and turning the unit.
   - A message appears notifying you to adjust your turning speed as needed. Hold the unit level while turning.
   - A "Calibration Successful" message appears when finished.
   - If a "Calibration Failed" message appears, repeat the process.
3. Press **ENTER** to return to the Compass page.

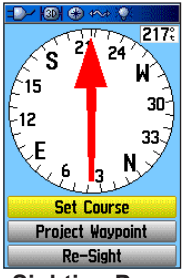
Compass Page Options

- **Sight 'N Go**—navigate to an object within your sight.
- **Stop (Resume) Navigation**—turns active navigation for a route or Go To on and off.
- **Recalculate**—recalculates the path to a destination.
- **Course or Bearing Pointer**—toggles between the course pointer and the bearing pointer.
- **Data Fields**—selects the number of data fields that appear on the Compass page.
- **Change Data Fields**—selects the type of data you want to show in the data fields.
- **Calibrate Compass**—allows you to calibrate the electronic compass.
- **Restore Defaults**—returns to factory settings.

Sight 'N Go Navigation

To use Sight 'N Go to navigate:

1. Press **MENU**> **Sight 'N Go** to start the feature. The compass ring with pointer is in-line with the sighting mark on the case.
2. Hold the unit at eye level and line up the two sighting marks with the distant object.



Sighting Page

3. Select **Set Course**.
4. Begin traveling to your destination on a course line using the course pointer as a guide.

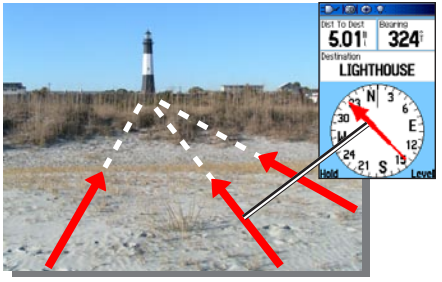
   OR

   Select **Project Waypoint**.
5. Enter an estimated distance from your current location to establish a projected waypoint location.
6. Select **Go To** to open the Map page and begin navigation to the projected waypoint. The Compass page shows a bearing pointer for guidance.

Using the Course Pointer or Bearing Pointer

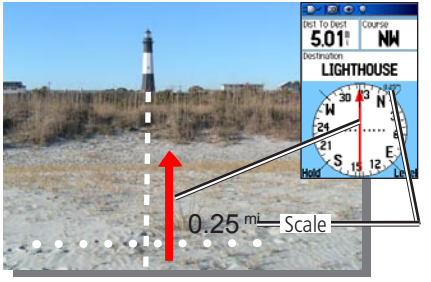
The bearing pointer and course pointer are independent of each other. The bearing pointer indicates the direction to your destination, and the course pointer indicates your relationship to a course line leading to the destination.

If the bearing pointer arrow is pointing straight up, for example, you are going directly to your destination. If it points any direction other than up, turn toward that direction until the arrow is pointing up and then continue in that direction. The bearing pointer points to the destination.



The Bearing Pointer always indicates the direction to your destination from your current location.

If you are using the course pointer option, and you drift away from the line of travel from your original location to your destination, the course deviation indicator (an arrow with horizontal dotted line) provides graphic indication of drift (right or left) according to the scale shown on the compass ring. Move to the right or left to get back on course.



The Course Pointer indicates your course of travel from your original location and the distance off course.

To select the course pointer or the bearing pointer:

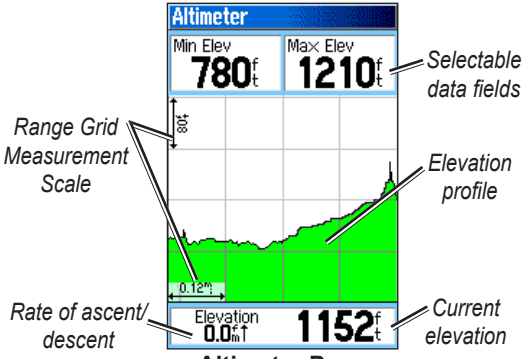
1. Press **MENU** to open the Compass page options menu. The bearing pointer is the factory default. When the bearing pointer option is shown, the course pointer is active and vice versa.
2. Highlight the bearing or course pointer option, and press **ENTER** to start.

Data Fields

You can show three or four data fields on the Compass page.

Altimeter Page

The Altimeter page shows you a profile of elevation changes over distance or time, or a profile of pressure changes over time.



Altimeter Page

The field at the bottom of the page shows the elevation and rate of ascent or descent when moving, the ambient pressure, and time of measurement.

Configure the Profile field in the center of the page to show either elevation or ambient pressure plots as selected from the options menu.

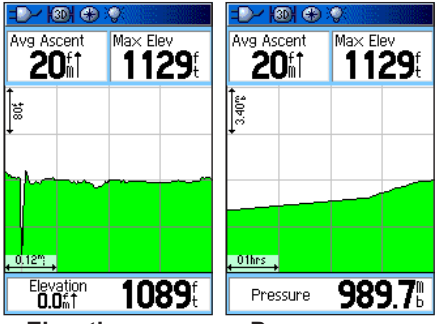
Data fields at the top of the page are user selectable.

Altimeter Page Options

- **View Elevation Plot**—Over Time or Over Distance—view over a set period of time or over a set distance.
- **View Pressure Plot**—Barometer or Ambient Pressure—view a plot of elevation changes that occur over a set distance or view changes in barometric pressure for a set period of time.
- **Zoom Ranges**—set the Zoom Ranges for elevation, distance, or time when you show the View Elevation Plot. Customize the View option displays using the Zoom Ranges option.
- **Change Data Fields**—select the type of data you want to show in the data fields.
- **Reset**—reset the elevation data and the maximum elevation data.
- **Calibrate Altimeter**—if you know the correct elevation for your location, increase accuracy by using the Calibrate Altimeter option.
- **Restore Defaults**—clears recorded data.

Plot Over Time (Distance)

These two measurement options (changes over a set period of time or changes over a set distance) apply only to the View Elevation Plot option. The View Pressure Plot option is measured by time.



Elevation over Distance plot **Pressure over Time plot**

View Pressure/Elevation Plots

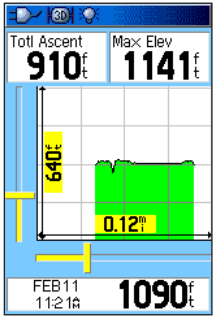
Select the **View Elevation Plot** to plot elevation changes. Select **View Pressure Plot** to plot changes in barometric pressure.

To view elevation or pressure plots:

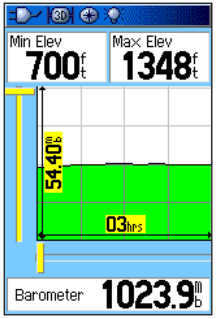
1. Select the option you want from the Altimeter options menu to show the plot.
2. Adjust time and distance measurement using the Elevation Plot Zoom Ranges.
3. To clear the plot, clear the Track Log.

Adjusting the Zoom Ranges

Set the Zoom Ranges for elevation, distance, or time when you use the View Elevation Plot.



Zoom ranges for Elevation over distance plot



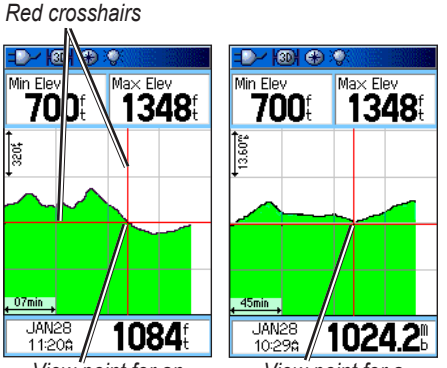
Zoom ranges for Pressure over time plot

To adjust zoom ranges:

1. Select the type of plot you want to show, and use the **ROCKER** to select **Zoom Ranges**.
2. Move the **ROCKER** up and down to adjust the vertical distance and left or right to adjust the time or distance. Press **ENTER** to return.

View Points

Scroll through a recorded elevation or pressure profile to view the elevation or pressure, time of day, and date the point was created.



View point for an altitude plot

View point for a pressure plot

To use the View Points option:

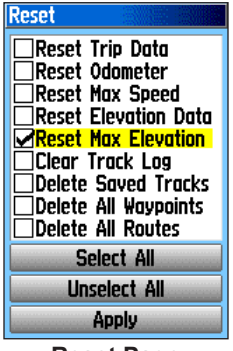
1. Press **MENU** > **View Pressure Plot** or **View Elevation Plot** to open the Plot page.

2. Use the **ROCKER** to scroll the cross hairs across the profile. As the cross hairs move across the profile, the status window at the bottom of the page changes to show the date, time, and altitude or pressure for the point.

Resetting Data

To reset the elevation data and max elevation fields:

1. Press **MENU** > **Reset**.
2. Select the reset options, and press **ENTER** to place a check by an option.



Reset Page

3. Highlight **Apply**, and press **ENTER** to reset the data fields. A confirmation message appears.

Calibrating the Altimeter

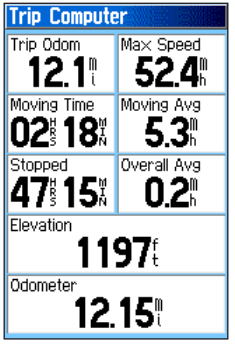
Because the GPSMAP 76CSx relies on the barometric pressure to determine the elevation and the pressure at any given elevation can fluctuate, calibrate the altimeter to increase its accuracy.

To manually calibrate the altimeter:

1. Press **MENU** > **Calibrate Altimeter**.
2. At the message "Do You Know The Correct Elevation?" highlight **Yes**, and press **ENTER**. If you do not know the elevation, select **No** to use pressure option. If you do not know the pressure, select **No** to use the default GPS elevation.
3. Use the **ROCKER** to enter the new elevation or pressure, select **OK**.

Trip Computer Page

The Trip Computer page shows eight types of navigation data. Choosing Big Numbers arranges the page in three large data fields.



Trip Computer Page

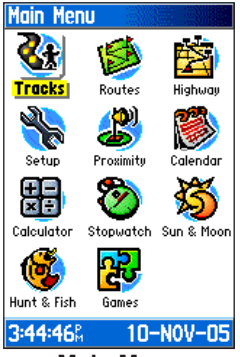
Each data field is selectable and can contain one of many data information options. When the data field title is selected, press **ENTER** to make a new choice.

Trip Computer Page Options

- **Reset**—stars a new record of the trip computer. Before each trip, reset the trip information by highlighting **Reset** from the Options Menu, and pressing **ENTER**. The Reset page offers options for resetting trip computer data, clearing the Track Log, and deleting Saved Tracks, Waypoints and Routes. This page allows you select individual items, select all, and deselect all. When your selections are made, highlight **Apply**, and press **ENTER**. Answer **OK** to the "The Data You Have Selected Will Be Permanently Deleted" prompt, and press **ENTER** to complete the reset.
- **Big Numbers**—shows fewer fields with larger numbers.
- **Change Data Fields**—allows you to select the type of data you want to show in the data fields.
- **Restore Defaults**—allows you to return the page to factory settings.

Main Menu

The Main Menu contains settings and features not found on the main pages and sub-menus. The time and date are shown at the bottom of this page. The Main Menu is accessible from any page by pressing **MENU** twice. To select an item on the Main Menu, highlight the menu item, and press **ENTER**.



Main Menu

NOTE: If a page is added to the page sequence, the page icon does not appear on the Main Menu.

Tracks

For more information, see page 18.

Route Page

For more information, see page 24.

Highway Page

This page takes you point by point to your destination.

Highway Page

To use the Highway Page:

Select the Highway page from the Main Menu and observe your path on the highway graphic.

Setup Menu

To access the Setup Menu:

From the Main Menu, select **Setup**.

System Setup Page

To access the System Setup:

From the Setup Menu select **System**.

- **GPS**—choose on the GPS options other than Normal to save battery power.
- **WAAS/EGNOS**—set to Enable or Disable.
- **Battery Type**—choose the type of battery being used in order to produce a more accurate battery capacity report.
- **Text Language**—set the unit's on-screen language.
- **External Power Lost**—set the unit to turn off if external power is lost.
- **Proximity Alarms**—turns custom POI and Proximity alarms on and off.

Use the option menu to restore defaults, read microSD card information, or view the version of unit software and the Unit I.D. number.

Display Setup Page

You can choose a display mode, a color scheme for day and for night viewing, adjust the amount of time that the backlight stays on, and set the level of brightness.

To access the Display Setup page:

From the Setup Menu, select **Display**.

- **Display Mode**—set for Auto (changes from day to night mode and back again at dusk and dawn), Day only, or Night only.
- **Daytime Color Scheme**—set in Day mode to one of 10 color schemes.
- **Nighttime Color Scheme**—set in Night mode to one of 10 color schemes.
- **Backlighting Timeout**—choose from Stays On or delays of 15 seconds, 30 seconds, one minute, or two minutes.
- **Backlight Intensity Level**—use the slider to adjust the brightness.

Interface Setup Page

Use when connecting to a computer.

To access the Interface Setup page:

From the Setup Menu, select **Interface**.

Serial Data Format—sets the data format to one of the following:

- **GARMIN**—the proprietary format used to exchange waypoint, route, track log and MapSource data with a computer.
- **NMEA In/NMEA Out**—Supports input and output of standard NMEA 0183 version 3.01 data.
- **TEXT OUT**—Allows ASCII text output of location and velocity information. No input.
- **NONE**—Provides no interfacing capabilities.

USB Mass Storage—allows the microSD card to be used as a USB Mass Storage device. It also allows transfer of Track Log Data to Garmin MapSource.

To activate USB Mass Storage for HCx units:

1. Connect the unit to a computer.
2. Select USB Mass Storage, and press **ENTER**.
3. Double click My Computer to observe a new **Removable Drive** listing.

To view information for the microSD card:

Press **MENU** prior to opening the USB Mass Storage page and, select **Card Info**.

To transfer files to the microSD card:

1. Double-click the **My Computer** icon.
2. Browse the computer for the file.
3. For a computer, select the file, **Edit > Copy**.

NOTE: If you have several network drives mapped to your computer, log on without connecting to the network or click **Start > Settings > Control Panel > Administrative Tools > Computer Management > Storage > Disk Management** and remap a drive letter for the storage device.

4. After the transfer, end the USB cable connection.

Tones Setup Page

This setup page allows you to select a unique tone for each of the tone applications. (For proximity alarm tones, see page 10.)

Page Sequence Setup

Add, remove, or reorder any of the Main pages.

To move, insert or remove a Main Page:

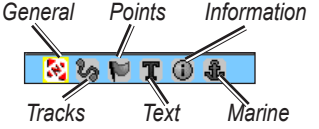
1. From the Setup Menu, select **Page Seq.**
2. To rearrange a page in the page sequence, select the page and press in. Select **Move**.
3. To insert a new page, select the page you want to insert if before, press **ENTER** > **Insert**.

Map Setup Page

Use the Map Setup page to adjust how items are shown on the Map page.

To customize the Map Page display:

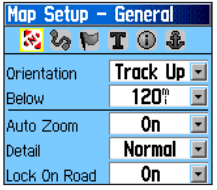
1. Press **MENU** > **Setup Map**. The top of the page contains icons for each setup page.
2. Use the **ROCKER** to select a page and to move up and down the feature fields on each page.



3. With a Map Setup feature highlighted, press **ENTER** to show the list of options for that feature. Each page has a sub-menu of general options. To access this menu, press **MENU** with the preferred setup page displayed.

Map Setup – General Page

The Map Setup – General page contains the settings for Orientation, Below, Auto Zoom, Detail, and Lock On Road.

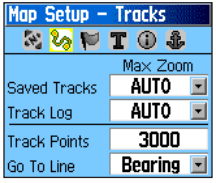


Map Setup – General Page

- **Orientation**—selects how the map is shown. North Up always shows north at the top of the page. Track Up shows your current track toward the top of the page.
- **Below**—sets the map scale at which the Track Up feature displays. All scales above that revert to the North Up map orientation.
- **Auto Zoom**—zooms the map scale to include the beginning and ending points of a route.
- **Detail**—selects the degree of map detail shown.
- **Lock On Road**—locks the map pointer to display on the nearest road, compensating for variances in map position accuracy.

Map Setup – Tracks Page

Use the Map Setup –Tracks page settings for Saved Tracks, Track Log, Track Points, and Go To Line.

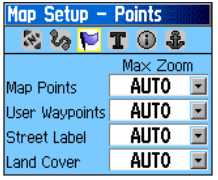


Map Setup – Tracks Page

- **Saved Tracks**—sets the maximum zoom range at which saved tracks are shown on the map.
- **Track Log**—sets the maximum zoom range at which active track logs are shown.
- **Track Points**—sets the maximum number of track points used to record a track.
- **Go To Line**—selects either a bearing or course line for navigating a track.

Map Setup – Points Page

Use the Map Setup – Points page to set the map scale at which Map Points, User Waypoints, Street Label, and Land Cover appear on the Map page. Select Auto, Off, or from 20 ft to 800 mi (50 m to 800 km).



Map Setup – Points Page

Map Setup – Text Page

Use the Map Setup – Text page to select the text size for descriptions of map items on the Map page. You can select from Small, Medium, or Large.

Map Setup – Text Page

Map Setup – Information Page

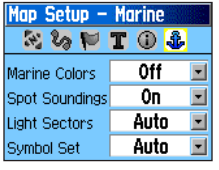
Use the Map Setup – Information page to view a list of downloaded detailed maps such as topographic, marine charts, and maps with auto-routing capability. Highlight a map to show it on the map or turn it off.

Map Setup – Information Page

Press **MENU** to view options for displaying maps.

Map Setup – Marine Page

Use the Map Setup – Marine page to customize settings for marine colors, spot soundings, light sectors, and symbol sets.



Map Setup – Marine Page

- **Marine Colors**—toggles colors on or off.
- **Spot Soundings**—toggles spot soundings on or off.
- **Light Sectors**—select from On, Off, and Auto.
- **Symbol Set**—select the symbol set to use (Auto, GARMIN, NOAA, International).

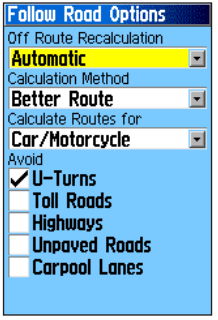
Routing Setup

Use to customize the wayrouting functions behave.

To access the Routing Setup Page:

From the Setup Menu, select **Routing** > **Follow Road Options**.

Routing Setup Page



Follow Road Options

Guidance Method—calculate routes based on:

- **Prompted**—you are prompted to select a preference before the route is calculated.
- **Follow Road**—increases the number of turns the route contains.
- **Off Road**—creates a direct line from your current location to your destination. This is useful when traveling outside of the detailed map coverage area or where no roads exist.

Follow Road Method—select how the unit calculates follow road routes based on:

- **Prompted**—you are prompted to select a preference before the route is calculated.
- **Faster Time**—routes calculated are faster to drive but might be longer in distance.
- **Shorter Distance**—routes calculated are shorter in distance but take more time to drive.

Next Turn Pop-up—turns the Next Turn pop-up window on or off.

Follow Road Options

Off Route Recalculation—set whether the unit prompts you when it is recalculating your route (Prompted) or recalculates automatically. You can turn off-route recalculation off.

Calculation Method—set how the unit searches for the route.

- **Quickest Calculation**—calculates the route the quickest, but it might not produce the best route.
- **Quick Calculation**—takes more time to calculate but generates a better quality route.
- **Better Route**—generates an even better quality route but uses a longer calculation time.
- **Best Route**—generates the optimal route but takes the longest time to calculat.
- **Calculate Routes For**—set route calculation for the vehicle you are operating to optimize the route for your vehicle type.

Avoid—avoid certain road types and maneuvers on your route.

Geocache Setup

See the Garmin web site for information on geocache locations, log on to http://my.garmin.com, and click Go Geocaching.

To setup the Geocache feature:

1. Access the Setup Menu, select **Geocache**.
2. Select the symbol fields if you want to assign other symbols.
3. Select **Yes** or **No** for a calendar entry when a geocache is found.

Marine Alarms Setup

To access the Marine Setup page:

From the Setup Menu, select **Marine**.

- **Anchor Drag Alarm**—sets an alarm when you exceed a specified drift distance.
- **Off Course Alarm**—sets an alarm to sound when off course.
- **Deep Water Alarm**—sets the depth at which the alarm sounds.
- **Shallow Water Alarm**—sets the depth at which the alarm sounds.

Time Setup

To access the Time Setup page:
From the Setup Menu, select **Time**.

- **Time Format**—choose from 12-hour or 24-hour time format.
- **Time Zone**—set to one of the eight US Time Zones, or 24 International Time Zones.
- **Daylight Saving Time**—On or Off or Auto.

Units Setup

To access the Units Setup page:
From the Setup Menu, select **Units**.

- **Position Format**—sets the coordinate system in which a location is shown.
- **Map Datum**—sets the description for geographic location for, mapping, and navigation and is not an actual map in the unit.
- **Distance/Speed**—sets the unit of measurement to show your speed and distance.
- **Elevation (Vert. Speed)**—sets the unit of measurement (Feet (ft/min), Meters (m/min), or Meters (m/sec).
- **Depth**—select the unit of measurement (Feet, Fathoms, or Meters).
- **Pressure**—sets the unit of measurement (Inches, Millibars, or Hectopascals).
- **Temperature**—sets the unit of measurement (Fahrenheit or Celcius).

Heading Setup Page

To access the Heading Setup page:
From the Setup Menu, select **Heading**.

- **Display**—choose from Cardinal Letters, Degrees or Mils.
- **North Reference**—choose from True, Magnetic, Grid or User options.
- **Switch to compass heading when below**—enter the selected speed for the unit to switch from using GPS to the electronic compass.
- **for more than…**—enter a time limit to switch to the compass.

Calibration Setup Page

Refer to page 31 and page 37.

Altimeter Setup

To setup the Altimeter:

1. From Setup Menu, select **Altimeter**.
2. Select the **Auto Calibration** field to select on or off. When on, elevation is corrected by GPS.
3. Select the **Barometer Mode** field to specify "Variable Elevation" (moving) or "Fixed Elevation" (stationary).

Welcome Page Setup

Insert a message when you turn the unit on.

Jumpmaster Setup

Jumpmaster is designed for experienced skydivers. Go to www.garmin.com for detailed information.

Proximity Waypoints

Use the Proximity Waypoints page to define an alarm circle around a waypoint. See page 9.

Calendar

To access the Calendar:

From the Main Menu, select **Calendar**.

Calculator

To access the Calculator:

From the Main Menu, select **Calculator**.

Stopwatch

To access the Stopwatch:

From the Main Menu, select **Stopwatch**.

Sun and Moon

To access the Sun and Moon Page:

From the Main Menu, select **Sun and Moon**.

Hunt & Fish

To view predictions for a date and location:

From the Main Menu, select **Hunt & Fish** to view the predictions for a different date. Select **Date** to open the on-screen keypad. For a location, select the **Location** field.

Games Menu

To open the Games Menu:

From the Main Menu, select **Games**.

APPENDIX

Specifications

Physical

Size: 6.2" H x 2.7" W x 1.4" D

Weight: 7.6 ounces (216 g) w/batteries installed.

Display: 1.5" W x 2.2" H, 256-color, high resolution, transreflective (160 x 240 pixels) with backlighting.

Case: Rugged, fully gasketed, water resistant, IEC-529, IPX7

Temp Range: 5 to 158°F (-15 to 70°C)*

*The temperature rating of the GPSMAP 76CSx may exceed the usable range of some batteries. Some batteries can rupture at high temperatures.

Performance

Receiver: WAAS/EGNOS enabled

Acquisition Times*:
Approx. 1 second (warm start)
Approx. 38 seconds (cold start)
Approx. 45 seconds (factory reset)

*On average for a stationary receiver with an open sky view.

Update Rate: 1/second, continuous

Antenna: Built-in quad helix, remote antenna capability.

Compass: Accuracy; +/- 5 degrees[1], resolution; 1 degree

Altimeter: Accuracy; +/- 10 feet*, resolution; 1 ft.

*Subject to proper user calibration.

Power

Source: Two 1.5 volt AA batteries, USB power, 12 V Adapter Cable, or up to 36 VDC external power

Battery Life: Up to 18 hours (typical use)*

*Alkaline batteries lose a significant amount of their capacity as the temperature decreases. Use Lithium batteries when operating the GPSMAP 76CSx in below-freezing conditions. Extensive use of screen backlighting, electronic compass, and audible tones significantly reduce battery life.

Accuracy

GPS: <10 meters (33 feet) 95% typical*

*Subject to accuracy degradation to 100 m 2DRMS under the U.S. DoD imposed Selective Availability (SA) Program when activated.

DGPS: 3-5 meters (10-16 feet) 95% typical*

*WAAS accuracy in North America.

Velocity: 0.05 meter/sec steady state

Interfaces: NMEA 0183 version 2.3, and RS-232 and USB for PC interface

Data Storage Life: Indefinite: no memory battery required

Map Storage: Dependant on the formatted capacity of the microSD Digital Card
(A small portion of the card capacity has been used in formatting the card for use.)

Interfacing

The following formats are supported for connection of external devices.

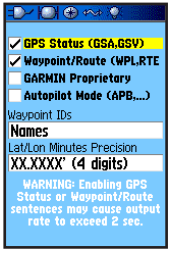
Garmin Proprietary Sentences—PGRME (estimated error), PGRMM (datum string), PGRMZ (altitude).

The NMEA 0183 version 3.01 interface format is supported by the GPSMAP 76CSx and enables the unit to drive up to three NMEA devices.

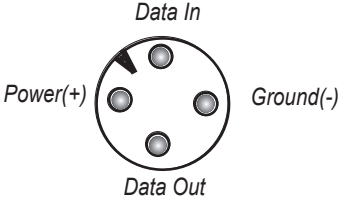
The following are the sentences for NMEA 0183, version 3.01 output:

Approved sentences—GPGGA, GPGLL, GPGSA, GPGSV, GPRMB, GPRMC, GPRTE, GPVTG, GPWPL, GPBOD, GPAPB

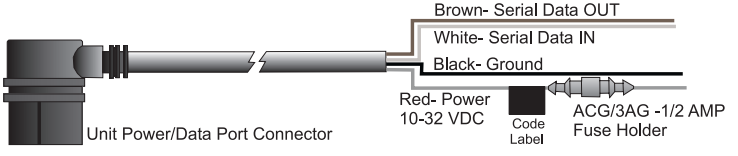
The USB Interface Cable provided with this unit allows you to connect your GPSMAP 76CSx to a PC-compatible computer's USB port.



The Advanced NMEA Setup Page, accessed from the Interface Setup Page Options Menu allows you to enable or disable NMEA sentences, set waypoint ID's and the precision of Lat/Lon minutes.



Unit Power/Data Port View



Optional Power/Data Serial Port Cable with Bare Wire Leads

Connecting Your GPSMAP 76CSx to a Computer

You can connect your GPSMAP 76CSx to your computer using either a serial port or USB connector cable.

NOTE: Fully install the supplied MapSource program, Trip & Waypoint Manager, on your computer before connecting the USB cable to the computer.

To connect your GPSMAP 76CSx to your computer:

1. Lift the USB protective cover from the back of the GPSMAP 76CSx and insert the smaller connector on the USB cable into the matching port.
2. Connect the remaining cable end to your computer's USB port.

To connect to your computer using a Serial Port connector:

1. Lift the Serial Port protective cover from the back of the GPSMAP 76CSx and insert the round indexed connector on the cable into the matching port.
2. Connect the remaining cable end to your PC Serial port or other appropriate device.
3. Set your GPSMAP 76CSx interface setting to the appropriate interface format. Refer to Interface Setup on page 41.

Information About USB Drivers

The USB drivers should have been automatically installed when you installed the MapSource program that came with your GPSMAP 76CSx. When you initially connect the GPSMAP 76CSx to a USB port, your computer might prompt you to locate the destination of the drivers for the device. You only need to install the drivers once. After the drivers are installed, your computer always detects your GPSMAP 76CSx when it is connected. USB drivers might be updated periodically. You can find updates at www.garmin.com.

Caring for the GPSMAP 76CSx

The GPSMAP 76CSx case is constructed of high quality materials and does not require user maintenance except cleaning.

Cleaning the Case

Clean the unit's outer casing (except for the screen) using a cloth dampened with a mild detergent solution and then wipe dry. Avoid chemical cleaners and solvents that may damage plastic components.

Cleaning the Screen

The unit's lens is coated with a special anti-reflective coating that is sensitive to skin oils, waxes and abrasive cleaners. Cleaners containing ammonia, alcohol, abrasives, or anti-grease detergents will harm the anti-reflective coating. It is important to clean the lens using an eyeglass lens cleaner (that is specified as safe for anti-reflective coatings) and a clean, lint-free cloth.

Storage

Do not store the GPSMAP 76CSx where prolonged exposure to temperature extremes may occur (such as in the trunk of a car) as permanent damage may result. User information, such as waypoints and routes are retained in the unit's memory without the need for external power. It is always a good practice to back up important user data by manually recording it or downloading it to a computer (transferring it to MapSource).

Water Immersion

The unit is waterproof to IEC Standard 60529 IPX7. It can withstand immersion in 1 meter of water for 30 minutes. Prolonged submersion can cause damage to the unit. After submersion, be certain to wipe and air dry the unit before reuse.

FCC Compliance

This product has been tested and found to comply with Part 15 of the FCC interference limits for Class B digital devices FOR HOME OR OFFICE USE. These limits are designed to provide more reasonable protection against harmful interference in a residential installation, and are more stringent than "outdoor" requirements.

Operation of this device is subject to the following conditions: (1) this device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.

This equipment generates, uses, and can radiate radio frequency energy and may cause harmful interference to radio communications if not installed and used in accordance with the instructions. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and the receiver.
- Connect the equipment into an outlet that is on a different circuit from the GPS unit.
- Consult the dealer or an experienced radio/TV technician for help.

This product does not contain any user-serviceable parts. Repairs should only be made by an authorized Garmin service center. Unauthorized repairs or modifications could result in permanent damage to the equipment, and void your warranty and your authority to operate this device under Part 15 regulations

Industry Canada Compliance

Category I radiocommunication devices comply with Industry Canada Standard RSS-210. Category II radiocommunication devices comply with Industry Canada Standard RSS-310.

Declaration of Conformity

Hereby, Garmin declares that this GPSMAP 76CSx is in compliance with the essential requirements and other relevant provisions of Directive 1999/5/EC.

To view the full Declaration of Conformity, see the Garmin Web site for your Garmin product: www.garmin.com/products/gpsmap76csx/. Click **Manuals** and then select the **Declaration of Conformity**.

Limited Warranty

This Garmin product is warranted to be free from defects in materials or workmanship for one year from the date of purchase. Within this period, Garmin will, at its sole option, repair or replace any components that fail in normal use. Such repairs or replacement will be made at no charge to the customer for parts or labor, provided that the customer shall be responsible for any transportation cost. This warranty does not cover failures due to abuse, misuse, accident, or unauthorized alteration or repairs.

This product is intended to be used only as a travel aid and must not be used for any purpose requiring precise measurement of direction, distance, location or topography. Garmin makes no warranty as to the accuracy or completeness of map data in this product.

THE WARRANTIES AND REMEDIES CONTAINED HEREIN ARE EXCLUSIVE AND IN LIEU OF ALL OTHER WARRANTIES EXPRESS, IMPLIED, OR STATUTORY, INCLUDING ANY LIABILITY ARISING UNDER ANY WARRANTY OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE, STATUTORY OR OTHERWISE. THIS WARRANTY GIVES YOU SPECIFIC LEGAL RIGHTS, WHICH MAY VARY FROM STATE TO STATE.

IN NO EVENT SHALL GARMIN BE LIABLE FOR ANY INCIDENTAL, SPECIAL, INDIRECT, OR CONSEQUENTIAL DAMAGES, WHETHER RESULTING FROM THE USE, MISUSE, OR INABILITY TO USE THIS PRODUCT OR FROM DEFECTS IN THE PRODUCT. SOME STATES DO NOT ALLOW THE EXCLUSION OF INCIDENTAL OR CONSEQUENTIAL DAMAGES, SO THE ABOVE LIMITATIONS MAY NOT APPLY TO YOU.

Garmin retains the exclusive right to repair or replace the unit or software or offer a full refund of the purchase price at its sole discretion. SUCH REMEDY SHALL BE YOUR SOLE AND EXCLUSIVE REMEDY FOR ANY BREACH OF WARRANTY.

To obtain warranty service, contact your local Garmin authorized dealer or call Garmin Product Support for shipping instructions and an RMA tracking number. Securely pack the unit and a copy of the original sales receipt, which is required as the proof of purchase for warranty repairs. Write the tracking number clearly on the outside of the package. Send the unit, freight charges prepaid, to any Garmin warranty service station.

Online Auction Purchases: Products sold through online auctions are not eligible for rebates or other special offers from Garmin. Online auction confirmations are not accepted for warranty verification. To obtain warranty service, an original or copy of the sales receipt from the original retailer is required. Garmin will not replace missing components from any package purchased through an online auction.

International Purchases: A separate warranty is provided by international distributors for units purchased outside the United States. This warranty is provided by the local in-country distributor and this distributor provides local service for your unit. Distributor warranties are only valid in the area of intended distribution. Units purchased in the United States or Canada must be returned to the Garmin service center in the United Kingdom, the United States, Canada, or Taiwan for service.

Garmin International, Inc.
1200 East 151st Street,
Olathe, Kansas 66062, USA
Tel. (913) 397-8200 or
(800) 800-1020
Fax (913) 397-8282

Garmin (Europe) Ltd.
Liberty House
Hounsdown Business Park,
Southampton, Hampshire, SO40 9RB UK
Tel. +44 (0) 870.8501241 (outside the UK)
0808 2380000 (within the UK)
Fax +44 (0) 870.8501251

Garmin Corporation
No. 68, Jangshu 2nd Road,
Shijr, Taipei County, Taiwan
Tel. 886/2.2642.9199
Fax 886/2.2642.9099

Software License Agreement

BY USING THE GPSMAP 76CSx, YOU AGREE TO BE BOUND BY THE TERMS AND CONDITIONS OF THE FOLLOWING SOFTWARE LICENSE AGREEMENT. PLEASE READ THIS AGREEMENT CAREFULLY.

Garmin grants you a limited license to use the software embedded in this device (the "Software") in binary executable form in the normal operation of the product. Title, ownership rights, and intellectual property rights in and to the Software remain in Garmin.

You acknowledge that the Software is the property of Garmin and is protected under the United States of America copyright laws and international copyright treaties. You further acknowledge that the structure, organization, and code of the Software are valuable trade secrets of Garmin and that the Software in source code form remains a valuable trade secret You agree not to decompile, disassemble, modify, reverse assemble, reverse engineer, or reduce to human readable form the Software or any part thereof or create any derivative works based on the Software. You agree not to export or re-export the Software to any country in violation of the export control laws of the United States of America.

INDEX

Symbols

2D navigation 5
3D navigation 5

A

addresses 15
altimeter 34
  calibrating 37
averaging a location 8
averaging location 8

B

backlight 4
batteries 2
battery type 40
bearing pointer 32

C

calculate area 20
calculator 48
calendar 48
calibration 47
cleaning 52
color 40
compass 29
  calibration 31
course deviation indicator 33
course pointer 32
creating waypoints 7, 8

D

databases 6
data fields 27
declutter 28
deleting waypoints 8
depth 8, 18, 47
display setup 40

E

editing routes 24
editing waypoints 8
elevation 8, 26, 34
Enter/Mark key 3

F

FCC 52
Find/MOB key 3
find menu
  city 15
  geocache 14
  intersection 16
  interstate exit 15
  waypoints 14

G

games 48
geochache 14, 46
GPS off/on 40
guidance text 28

H

heading setup 47
highway page 39
How To
  project a waypoint 9
  use Sight N Go to navigate 32
hunt and fish 13

I

In/Out zoom keys 3
initializing the GPS 4
interfacing 50
intersections 16

J

Jumpmaster 48

L

language 40
lock on road 43
log track to data card 19

M

man overboard (MOB) 10
map page
  options 28
  setup 42
MapSource 6
marine alarms setup 46
measuring distance 29
Menu key 3
messages 5

N

navigating
  routes 23
  saved tracks 21
new location 26

O

off road transition 24

P

Page key 3
plot over distance 35
plot over tme 35
point of interest 17
pojecting waypoints 9
Power key 3
preview turns 23
proximity alarms 10
proximity waypoints 9

Q

Quit key 3

R

Rocker key 3
routes
- auto-routing 23
- creating 22
- methods for routing 22
- navigating 23
- setup 45

S

satellite page 4, 26
saved tracks 19
setup map 42
Sight 'N Go 32
status bar 5
stopwatch 48
storage 52
sun and moon 13
system setup 40

T

tide stations 16
time setup 47
time zone 47
tones setup 42
TracBack 21
tracks 18
track log
- record method 18

track up 28
trip computer 38
turning on/off 4

U

units setup 47
USB mass storage 41

W

warranty 53
water immersion 52
waypoints 7, 8
- averaging location 8
- creating 7
- current location 7
- editing 8
- finding 14
- MOB 10
- projecting 9
- proximity 9
- using 7

Z

zoom ranges 20, 34

For the latest free software updates (excluding map data) throughout the life of your Garmin products, visit the Garmin Web site at www.garmin.com.

© 2007 Garmin Ltd. or its subsidiaries

Garmin International, Inc.
1200 East 151st Street, Olathe, Kansas 66062, USA

Garmin (Europe) Ltd.
Liberty House, Hounsdown Business Park, Southampton, Hampshire, SO40 9RB UK

Garmin Corporation
No. 68, Jangshu 2nd Road, Shijr, Taipei County, Taiwan

www.garmin.com

Part Number 190-00558-00 Rev. D